

S T A T E O F W A S H I N G T O N

Technical Division

POLLUTION CONTROL COMMISSION

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MEMORANDUM NUMBER 9CORRECTION OF POLLUTION OF PORT WASHINGTON NARROWSBY EFFLUENTS FROM THE WESTERN GAS COMPANY OF BREMERTON, WASHINGTON

by Nathan Fasten

On Wednesday, July 18, 1945, Sanitary Engineer, Harrison W. Kramer, special consulting engineer for the Pollution Control Commission and Chief Biologist Nathan Fasten paid a visit to the Western Gas Company plant along Port Washington Narrows, Bremerton, Washington for the purpose of inspecting installations for the prevention of pollution.

In the past the effluents from this plant, chiefly in the form of circulating liquor consisting mainly of a mixture of water, tar, oil and phenols entered waters of Port Washington Narrows directly, and caused a grave pollution problem. To correct this, the Western Gas Company following a plan outlined by Professor S. R. Tymstra, Engineer of the University of Washington, erected a suitable sump and a filter through which the effluents from the plant are conveyed before any of

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them have a chance of entering the waters of the Narrows. Mr. Kramer and Chief Biologist Fasten carefully examined the sump, the filter, and the effluents brought into the filter as well as those which left through the outlets at the bottom of the sump.

The filter itself consists of a bottom layer of fine sand and a top covering of wood shavings. A large conveyor pipe brings the circulating fluid to the sump. It is then distributed to various parts of the sump by means of smaller connecting pipes and branches that are perforated with some holes. The effluents come out of these minute pores and flow over the wood shavings to form the topmost layer of the filter. The shavings collect a large amount of the oil, tar, and phenol wastes. The sand then collects the remaining residues. The water trickles down and when it finally escapes from the bottom outlets it is a perfectly clear liquid, and this eventually enters the Narrows. The top layer of shavings from the sump, after becoming saturated with the tar and oil wastes is removed and burned in a pit on the land. A new layer of shavings is then brought in to replace it, in order to remove more effectively the sticky wastes.

In response to questions the officials of the Western Gas Company gave assurance that another sump and filter would be erected so that if the one in use becomes clogged up with tar and oil, the effluents from the plant will then be conveyed into the second sump, thereby making it possible to clean the first one. Both Mr. Kramer and Dr. Fasten felt that the past pollution from the Western Gas Company had been adequately solved.